

University of New Hampshire University of New Hampshire Scholars' Repository

Media Relations

Administrative Offices

8-4-2005

Scientists Gather At UNH To Discuss Initial Findings From Massive 2004 Air Quality Study

David Sims

Follow this and additional works at: <https://scholars.unh.edu/news>

Recommended Citation

Sims, David, "Scientists Gather At UNH To Discuss Initial Findings From Massive 2004 Air Quality Study" (2005). *UNH Today*. 1430.
<https://scholars.unh.edu/news/1430>

This News Article is brought to you for free and open access by the Administrative Offices at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Media Relations by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact nicole.hentz@unh.edu.



Related Links

[UNH Institute for the Study of Earth, Oceans, and Space](#)

[AIRMAP](#)

[NOAA](#)

Scientists Gather At UNH To Discuss Initial Findings From Massive 2004 Air Quality Study

Contact: [David Sims](#)
603-862-5369
Science Writer
Institute for the Study of Earth, Oceans, and Space

Aug. 4, 2005

DURHAM, N.H. -- Last year at this time, seacoast New Hampshire was the hub of an unprecedented atmospheric science field campaign involving hundreds of scientists from around the world. Next week, at the University of New Hampshire, preliminary data from the International Consortium for Atmospheric Research on Transport and Transformation (ICARTT) will be shared for the first time since the six-week-long field experiment drew to a close in mid-August 2004.

"This was a really complex experiment, with so many people and so much logistical integration that it took a year for people to pull their data together," says UNH atmospheric chemist Robert Talbot, director of AIRMAP -- a joint National Oceanic and Atmospheric Administration/UNH program aimed at understanding climate variability and the source of persistent air pollutants in New England. AIRMAP's four regional state-of-the-art atmospheric observatories served as the foundation for the field experiment. U.S. Senator Judd Gregg helped secure funding for the AIRMAP program and facilitated NOAA's role in ICARTT.

Adds Talbot, "This campaign was the first time we've been able to make a concerted effort, using airplanes, a ship, satellites, and balloons, to better understand regional air quality, intercontinental transport of polluted air masses, the role that nighttime chemistry plays, and the effects of pollutants on atmospheric cooling and warming. So, there should be some important information coming out of this meeting."

For example, there will be insights into the possible role that sea-borne compounds called halogens, like chlorine or iodine, play in creating or destroying ground-based ozone levels.

When polluted continental air meets up with halogen-rich coastal marine air, the chemistry gets complicated and is not well understood. A better understanding is important if scientists are to calculate the global ozone budget much like they are trying to ascertain the world's carbon budget vis-à-vis climate change and global warming.

Tropospheric ozone (as opposed to the stratospheric variety that helps protect the Earth from ultraviolet radiation) is generally considered to be a pollutant and can cause respiratory problems and damage plants. At the same time, this ozone plays a dual role in helping to cleanse the Earth's atmosphere, and so keeping a healthy balance of the compound is important in the overall, global state of our atmosphere.

At the workshop, ICARTT scientists will also for the first time be able to compare notes on what was discovered about the effect aerosols or particulate matter have on the cooling or warming of air masses. The "radiative" properties of these particles play a critical role in regional and hemispheric temperatures. Additional insights, based on what was observed last summer, will be provided into how well current forecast models are able to simulate the chemistry and transport of pollutants.

Talbot notes also that, like the university's prominent role in ICARTT itself, UNH's hosting of this meeting is a feather in its cap because scientific gatherings of this size and importance are generally reserved for special sessions of the American Geophysical Union meetings or the like. This will be the first meeting of some of the finest minds in atmospheric chemistry well before next fall's AGU meeting in San Francisco.

And, says Talbot, "Until you hear what everybody's found it's really hard to develop any answers, until you can see how the whole thing fits together it's hard to pull out the real simplified gems."

Editors: The ICARTT meeting will be held in the Granite State Room of the Memorial Union Building on the Durham campus beginning Tuesday, August 9, and running through Friday morning on August 12. Scientists will be available for reporter's questions Wednesday and Thursday. There will be nearly 100 posters graphically displaying the ICARTT data.